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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,458	06/05/2001	Craig F. Culver	IMM059A	6909

34300 7590 06/28/2006

PATENT DEPARTMENT (51851)  
KILPATRICK STOCKTON LLP  
1001 WEST FOURTH STREET  
WINSTON-SALEM, NC 27101

EXAMINER
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WU, XIAO MIN

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicati n N .</b>	<b>Applicant(s)</b>	
	09/875,458	CULVER, CRAIG F.	
	<b>Examiner</b>	<b>Art Unit</b>	
	XIAO M. WU	2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-34,58-71 and 74-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-34,58-71 and 74-79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 23-34, 58-71 and 74-79 are rejected on the ground of nonstatutory obviousness-

type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,256,011.

Although the conflicting claims are not identical, they are not patentably distinct from each other because they are similar and not patentably distinct from each other. The following side-by-side comparison table is comparing the representative claim 17 of the U.S. Patent No. 6,256,011 and the representative claim 23 of the instant application.

US Patent No. 6,256,011	Instant application
17. A force feedback control in communication with a host computer implementing a graphical environment, the force feedback control device	23. An apparatus comprising:

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comprising:	
<p>a housing;</p> <p>An arm rotatably coupled to said housing and operative to move with respect to said housing in a first rotary degree of freedom;</p>	<p>a manipulandum movable in at least two rotary degrees of freedom, wherein said at least two rotary degrees of freedom comprise a first and a second rotary degree of freedom, wherein an axis of rotation of said first rotary degree of freedom is substantially perpendicular to an axis of rotation of said second rotary degree of freedom;</p>
<p>a first sensor coupled to said arm and operative to sense said movement of said arm, said first sensor outputting a first control signal;</p>	<p>a sensor operable to detect a position of said manipulandum and a deviation of said manipulandum from said position and to output a first sensor signal associated with said deviation of said manipulandum from said position;</p>
<p>a first actuator coupled to said arm and operative to output a first force to said arm, said in said first rotary degree of freedom, said first actuator being controlled by a first actuator signal;</p>	<p>a first actuator operable to provide tactile feedback to said manipulandum in a first of said at least two degrees of freedom, the tactile feedback associated with said first sensor signal;</p>
<p>a roller rotably coupled to said arm and operative to rotate with respect to said arm in a</p>	

second rotary degree of freedom;	
a second sensor coupled to said roller and operative to sense said rotation of said roller, said second sensor outputting a second control signal; and	
a second actuator coupled to said roller and operative to output a second force to said roller in said second rotary degree of freedom, said second actuator being controlled by a second actuator signal.	a second actuator operable to provide tactile feedback to said manipulandum in a second of said at least two degrees of freedom, the tactile feedback associated with said first sensor signal; and
	a first processor operable to control said first actuator and said second actuator and to receive said first sensor signal from said sensor.

From the comparison above, claim 23 of the instant application is broadening from claim 17 of the US Patent No. 6,256,011 since claim 23 only requires one sensor for sensing the position of the manipulandum. It would have been obvious to combined two sensing devices into a single sensing unit so as to have a more compact design.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 23-34, 58-71 and 74-79 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **XIAO M. WU** whose telephone number is 571-272-7761. The examiner can normally be reached on 6:30 am to 4:00 pm.

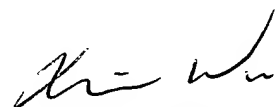
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD HJERPE**, can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

X.W.  
June 24, 2006



**XIAO M. WU**  
**Primary Examiner**  
**Art Unit 2629**